

REMARKS

Claims 1-10 are all the claims pending in the application.

Claims 3 and 8 are rejected under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite. In particular, the Examiner believes that the phrase “said edging mark is an edging line forming a shape slightly larger than and similar to a peripheral edge shape of a edged lens” is not clearly defined.

Claim 3 and 8 are amended so as to clarify the expression “an edging line.” An edging line indicates a first region of the lens remaining after an edging matched with an inner peripheral edge of openings of the spectacle frame and is marked in a second region, to be cut off by the edging, of a surface of the spectacle lens. One of ordinary skill in the art should mark an edging line having the same shape as the inner peripheral edge of an opening of a spectacle frame quite near the inner peripheral edge of an opening of a spectacle frame.

Claims 1, 4, and 5 are rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by Kato (JP 09-99444 A). Claims 6 and 9 are rejected under 35 U.S.C. § 102(a) as allegedly being anticipated by Yasushi et al. (JP 10-282459 A). Claim 2 is rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Kato in view of Logan et al. (USP 4,711,035). Claim 3 is rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Kato in view of Logan et al. and further in view of Wood et al. (USP 5,053,971). Claims 6 and 9 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Hoya Corp. (JP 2507643 Y2) in view of Yasushi et al. Claim 7 is rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Hoya Corp. in view of Yasushi et al. and further in view of Logan et al. Claim 8 is rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Hoya Corp. in view of Yasushi et

al. and Logan et al. and further in view of Wood et al. Claim 10 is rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Hoya Corp. in view of Yasushi et al. and Logan et al. and further in view of Komatsu et al. (JP 06-191159 A).

Applicant respectfully traverses the rejections as set forth below.

Kato teaches a method for producing a spectacle lens including a marking step of depicting production information of the spectacle lens in a region of a surface of the spectacle lens to be cut off by edging. This edging is performed to cut the outer periphery of the mold which is larger than the outer diameter of a completed lens. On the other hand, Kato does not disclose or teach receiving a spectacle frame information and an edging mark indicating a region of the lens remaining after an edging matched with an inner peripheral edge of openings of the spectacle frame, as required by independent claim 1 of the present invention. Therefore, Kato does not disclose or render obvious claims 1 and 4-5 of the present invention.

Yasushi et al. teach a lens processing system comprising a reference position detecting apparatus for detecting a reference position of a spectacle lens and a marking apparatus for depicting production information of the spectacle lens on a surface of the spectacle lens on the basis of reference position information obtained by the reference position detecting apparatus. However, the marking apparatus in Yasushi et al. is a printing pad 42. Thus, an identical mark is printed on the spectacle lens.

On the contrary, the lens processing system of the present invention has a computer for calculating a shape of an edging line indicating a region of the lens remaining after edging matched with an inner peripheral edge of openings of a spectacle frame, on the basis of a

spectacle frame information and a marking apparatus for depicting the edging line on a specific surface of the spectacle lens in a region, to be cut off by the edging. Therefore, Yasushi et al. do not disclose or teach the lens processing system of the present invention, and Yasushi et al. do not anticipate or render obvious claim 6 and 9 of the present invention.

As noted above, Kato fails to teach or suggest all of the limitations of claim 1 of the present invention, from which claim 2 depends. Since Logan et al. do not make up for the deficiencies of Kato, and because Logan et al. fail to teach or suggest the limitations of claim 2, claim 2 is believed to be allowable over the prior art.

Logan et al. teach that, in general, the shape of the lens opening is transferred to the surface of a lens blank by a marker or other transfer device (edging line), and then the lens blank is cut following the outline. But, the edging line in Logan et al. is the outline to be cut off. The edging line in Logan et al. corresponds to broken line 11 in Fig. 2 of the present invention. The edging line in the present invention is the line on a specific surface of the spectacle lens in a region to be cut off by the edging, and shown by reference No. 31 in Fig. 2 of the present invention. So, the edging line in Logan et al. is essentially different from the edging line in the present invention. Therefore, Logan et al. do not disclose and teach a method for producing a spectacle lens of the present invention, and the combination of Logan et al. and Kato does not render obvious the present invention.

Wood et al. teach that, in surface mapping the periphery of a lens to be edged, it is desirable to trace the periphery at a 0.02" greater radius than the desired finished lens edge. Wood et al. teach "The ability to map the shape of a lens before cutting minimizes the chance of

error and substantially eliminates the guess work and trial and error methods of bevel placement, lens positioning for pin beveling, selection of the proper size blank to fill the frame opening and a determination as to whether the lens blank is too thin or too thick to be properly edged in accordance with the size and shape of the lens to be fitted to the eyeglass frame.” (Col. 8, lines 11-19). So, the surface mapping of the periphery of a lens to be edged in Wood et al. does not mark an edging line.

An object of mapping at a greater radius than the finished edge dimension is to avoid creating scratches on the lens surface. On the contrary, an object of marking the edging line larger than the finished edge dimension is for the edging line not to remain in the edged lens. So, the object of mapping in Wood et al. is essentially different from the object of the edging line in the present invention. Therefore, Wood et al. does not disclose or teach the method for producing a spectacle lens of the present invention.

Thus, for at least the reasons noted regarding Wood et al. and the aforementioned deficiencies of Kato and Logan et al., the combination of Wood et al., Kato, and Logan et al. does not teach or suggest all of the limitations of claim 3.

Hoya Corp. teaches an unfinished spectacle lens having both reference marks and hidden marks, and reference marks are located outside the desired finished diameter of the lens. Hoya Corp. teaches that two hidden marks 5,6 are transferred on a surface of a lens from a mold and a configuration of two hidden marks 5,6 and center of lens is an equilateral triangle, so as to detect the center of the lens easily. However, Hoya Corp. does not disclose and teach an edging line indicating a region of the lens remaining after an edging in matching with inner peripheral edge

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of openings of the spectacle frame, as claimed in claim 6. Furthermore, as noted above, Yasushi et al. do not teach or suggest all of the limitations of claim 6. Thus, the combination of these references fails to teach or suggest the lens processing system of claim 6 (and its dependent claim 9) of the present invention.

Komatsu et al. teach a laser marking apparatus that performs the marking operation by laser beam. On the other hand, Komatsu et al. do not disclose or teach an edging line indicating a region of the lens remaining after an edging in matching with inner peripheral edge of openings of the spectacle frame.

Regarding claim 7, as noted above, Hoya Corp. and Yasushi et al. do not disclose all of the limitations of independent claim 6. Furthermore, since Logan et al. do not make up for the deficiencies of Hoya Corp. and Yasushi et al., claim 7 is believed to be in form for allowance.

Likewise, claims 8 and 10 are believed to be allowable, at least because the applied prior art fails to teach or suggest all of the limitations of claim 6, from which claims 8 and 10 depend.

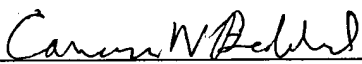
In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

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Applicant hereby petitions for any extension of time which may be required to maintain the pendency of this case, and any required fee, except for the Issue Fee, for such extension is to be charged to Deposit Account No. 19-4880.

Respectfully submitted,

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Date: September 28, 2001

APPENDIX
VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS:

The claims are amended as follows:

1. (Amended) A method for producing a spectacle lens, comprising an obtaining step of receiving a spectacle frame information, and a marking step of depicting production information of the spectacle lens including an edging mark indicating a first region of the lens remaining after an edging matched with an inner peripheral edge of openings of the spectacle frame in a second region, to be cut off by the edging, of a surface of the spectacle lens on the basis of the spectacle frame information.

2. (Amended) A method for producing a spectacle lens according to claim 1, wherein said production information of the spectacle lens includes an edging [mark] line indicating [a] the first region of the lens remaining after said edging.

3. (Amended) A method for producing a spectacle lens according to claim 2, wherein said edging mark is an edging line forming a shape slightly larger than and [similar to] having the same shape as the inner [a] peripheral edge [shape] of [a edged lens] an opening of a spectacle frame.

6. (Amended) A lens processing system comprising:
a reference position detecting apparatus for detecting a reference position of a spectacle lens;

a computer for calculating a shape of an edging line indicating a first region of the lens remaining after edging matched with an inner peripheral edge of openings of a spectacle frame on the basis of a spectacle frame information; and

a marking apparatus for depicting production information of the spectacle lens including the edging line on a specific surface of the spectacle lens in a second region, to be cut off by the edging, on the basis of reference position information obtained by said reference position detecting apparatus.

8. (Amended) A lens processing system according to claim [7] 6, wherein said [edging mark is an] edging line [forming] having a shape slightly larger than and [similar to] having the same shape as a peripheral edge [shape] of [a edged lens] an opening of the spectacle frame.